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NPS COASTS PROGRAM COMPLETES SUCCESSFUL FIELD EXPERIMENTATION WITH ROYAL THAI ARMED FORCES IN THAILAND—James F. Ehlert, jfehlert@nps.edu

The Cooperative Operations and Applied Science & Technology Studies (COASTS) international field experimentation team, consisting of over 30 members representing Naval Postgraduate School (NPS) faculty and students, Office of Naval Research (ONR) reservists, and industry representatives, recently completed a successful two-week field experimentation in partnership with the Royal Thai Armed Forces at Ao Manao Air Base in South-Central Thailand.

COASTS engages international and domestic partners at the research & development (R&D) level through cooperative science & technology (S&T) field experimentation to investigate and match participant mission needs with integrated command and control, computers, communications, intelligence, surveillance and reconnaissance (C4ISR) solutions in domestic, bi-lateral and

from the RTAF and the RTN. FEX-IV featured the first time integration of an RTN Fast Patrol Craft in the COASTS architecture.

The COASTS-08 Scenario features a combined Thai-US Team operating jointly in three scenario phases: (1) a Humanitarian Assistance/ Disaster Relief phase, (2) a Force Protection/ Base Security phase, and (3) an Oil Pipeline Security/ Maritime Interdiction Operations phase.

In the first phase, a combined Thai/ US force responded to a simulated tsunami event in southern Thailand, much like the actual 2006 tsunami disaster. Ground forces, manned and unmanned air assets and the RTN Patrol Craft arrived on scene to provide real-time C4ISR capabilities via a hastily formed network.

In the second phase, a red-team attack on an Ao Manao Air Base, COASTS sensors detected the attack and provided situation awareness to local and remote command nodes which prompted the deployment of combined Thai/ US security teams. These sensors were all connected via the COASTS network consisting of a variety of cutting-edge wireless communications technologies protected by advanced network security systems.

In the third phase, an attack on a simulated oil pipeline, the COASTS sensors detected the attack allowing command authorities to order a combined Thai/US special operations force to be launched from the RTN Patrol Craft resulting in apprehension of the terrorists before the pipeline could be damaged. The Thai Navy Patrol Craft then conducted a boarding of the attacking Red Team vessel launching the attack while transmitting video and biometrics data of the boarding operations back in real-time on the COASTS network.

In Phases 2 and 3, all apprehended "suspects" had their biometrics data collected (including fingerprints, iris and face scans) and sent in real time to the Biometrics Fusion Center (BFC) in the US. Biometrics matches were made by the BFC against previously loaded data resulting in positive identification of high value suspects in less than five minutes from collection to having the answer on scene.

"The COASTS surveillance network was able to provide immediate situation awareness to remote decision makers over an area which previously had no surveillance coverage," said Capt. Paul Marshall who heads the Office of Naval Research Reserve Team. "A remarkable aspect of this capability was that it was set up from scratch in days. The hastily formed, deployable aspect of the C4ISR architecture makes it applicable to modern warfare scenarios."

Air Vice Marshall Wanchai from DSTO added, "The COASTS program is just the right fit and size for the Defense Science & Technology Office to participate and to undertake joint research efforts. It has a successful blend of commercial and military applications without the overhead of other international engagements. We are very excited to expand our involvement for FEX V and for COASTS 2009."



Royal Thai Air Force Airman's Biometrics Collected



ENS Chris McCook and the Thai-US Security Team Apprehends the Scenario Red Team and Collects Biometrics Data

multi-national environments. COASTS provides a low-cost test bed for assessment of specific technologies, components and/or systems solutions resulting in NPS student thesis projects and formal Military Utility Assessments of these C4ISR technologies.

"The COASTS 2008 International Field Experimentation Team is experiencing wonderful R&D synergy with the Royal Thai Armed Forces via its veteran partners such as the Defense Science & Technology Organization (DSTO) and the Royal Thai Air Force (RTAF), but also with the inclusion of several new partners such as the Royal Thai Navy Research & Development Office (NRDO), the Royal Thai Navy (RTN) surface fleet, and the Royal Thai Navy SEALs," said NPS Information Sciences Research Associate James Ehlert, COASTS Program Manager. "The opportunity for collaborative project and inter-operability exchange between the Royal Thai Armed Forces and the Naval Postgraduate School has never been better."

The recently completed Field Experiment (FEX) IV at the Royal Thai Air Force Base in Ao Manao, Prachuap Khiri Khan province, brought the US-based COASTS infrastructure employed in FEXs I, II and III at Camp Roberts, California, into the challenging environment of Central Thailand. FEX-IV also integrated the COASTS Thai partners including officers and enlisted personnel

Sixth Security Workshop: Globalization & Maritime Security

We cordially invite submission of abstracts for participation in a research collaboration workshop.

www.sagecenter.net POC: Karen Guttieri, guttieri@nps.edu

Start: Jul 29 2008 - 9:00am End: Jul 31 2008 - 5:00pm Time zone: Etc/GMT

Marriott Crystal Gateway Hotel, Washington DC

GLOBALIZATION CHALLENGES

We have identified three general research areas in which to build collaborative proposals:

1. Globalization systems,
2. Shocks, trends and prevention, and
3. Leadership development for complex environments

CHALLENGES OF MARITIME SECURITY

Our goal for the Maritime Security focus will be to advance research in the following three areas:

1. Port Security
2. Global Maritime Partnerships, and
3. Security in Straits

We request interested parties submit **abstracts** of research interest for both tracks (containing no more than 250 words in English) to Security Workshop Abstract Submissions online form at http://www.sage-center.org/events/security_workshop/index.html by June 5, 2008.

LIBRARIAN'S CORNER—Greta Marlatt, gmarlatt@nps.edu

Latest Heritage Foundation report - Securing the High Seas

This is the 3rd report in a series on maritime security prepared by the Heritage Foundation

Securing the High Seas: America's Global Maritime Constabulary Power

http://www.heritage.org/Research/NationalSecurity/upload/sr_20.pdf

Previous reports

Making the Seas Safer: A National Agenda for Maritime Security and Counterterrorism

<http://www.heritage.org/Research/HomelandSecurity/sr03.cfm>

Trade Security at Sea: Setting National Priorities for Safeguarding America's Economic Lifeline

<http://www.heritage.org/Research/HomelandSecurity/bg1930.cfm>

Rand reports—

Increasing Aircraft Carrier Forward Presence: Changing the Length of the Maintenance Cycle

http://rand.org/pubs/monographs/2008/RAND_MG706.pdf

Small Ships in Theater Security Cooperation http://rand.org/pubs/monographs/2008/RAND_MG698.pdf

Small Vessel Security Strategy release by the DHS— Greta Marlatt, gmarlatt@nps.edu

The DHS has just released its new Small Vessel Security Strategy (SVSS) designed to close security gaps and reduce risks associated with the potential exploitation of small maritime vessels."

Small Vessel Security Strategy (SVSS)

<http://www.dhs.gov/xlibrary/assets/small-vessel-security-strategy.pdf>

Fact Sheet

http://www.dhs.gov/xnews/releases/pr_1209398073431.shtm

Press Release

http://www.dhs.gov/xnews/releases/pr_1209390662950.shtm

Report of the DHS National Small Vessel Strategy Summit [a related report]

http://www.dhs.gov/xlibrary/assets/small_vessel_NSVSS_Report_HQ_508.pdf